

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the above-captioned application. Please cancel claim 95-106, 147-158 and 189-199 without prejudice.

Listing of Claims:

1.-158. (cancelled).

159. (previously presented) A system for making an ophthalmic eyeglass lens, comprising:

a first mold member having a casting face and a non-casting face;

a second mold member having a casting face and a non-casting face, the second mold member being configured to be spaced apart from the first mold member during use such that the casting faces of the first mold member and the second mold member at least partially define a mold cavity;

a lens forming composition configured to be disposed within the mold cavity during use, comprising:

a monomer that is curable in the mold cavity by exposure to activating light to substantially form the eyeglass lens;

a photochromic compound that absorbs at least a portion of the activating light in a first range during at least a portion of the curing of the monomer; and

a photoinitiator that activates a co-initiator after being exposed to at least a portion of activating light in a second range during curing, wherein the co-initiator activates curing of the monomer to form the eyeglass lens and wherein the co-initiator

facilitates curing of the lens forming composition; and

a first light generator configured to generate and direct activating light at a wavelength in the second range toward at least one of the mold members to cure the lens forming composition and to form the eyeglass lens during use.

160. (cancelled)

161. (previously presented) The system of claim 159, wherein the first light generator is configured to direct light toward the first mold member, and further comprising a second light generator configured to generate and direct light toward the second mold member.

162. (cancelled).

163. (previously presented) The system of claim 159, wherein the first light generator is configured to generate and direct activating light pulses with a sufficiently high intensity such that the photoinitiator forms a first polymer chain radical.

164. (previously presented) The system of claim 159, wherein the first light generator is further configured to generate and direct activating light pulses with a sufficiently high intensity such that the photoinitiator forms a first polymer chain radical that reacts with the co-initiator and such that the co-initiator forms a second polymer chain radical that reacts with the monomer.

165. (previously presented) The system of claim 159, further comprising a hazy filter disposed directly adjacent to at least one of the mold members, the filter being configured to manipulate intensity of activating directed light toward the lens forming composition during use.

166. (previously presented) The system of claim 159, further comprising a hazy filter disposed directly adjacent to at least one of the mold members, the filter comprising a varying thickness such that the filter varies an intensity distribution of activating light directed across the mold members during use.

167. (previously presented) The system of claim 159, further comprising a cooler configured to cool the mold cavity during use.

168. (previously presented) The system of claim 159, further comprising a distributor configured to apply air to the mold cavity to remove heat from the mold cavity during use.

169. (previously presented) The system of claim 159, wherein the first light generator comprises a fluorescent light source.

170. (previously presented) The system of claim 159, wherein the first light generator comprises a fluorescent light source configured to emit light at a wavelength of about 385 nanometers to 490 nanometers.

171. (previously presented) The system of claim 159, further comprising a temperature sensor configured to measure changes in the temperature of the lens forming composition during use.

172.-177. (cancelled).

178. (previously presented) The system of claim 159, wherein the monomer comprises a polyethylenic-functional monomer containing ethylenically unsaturated groups selected from acrylyl and methacrylyl.

179. (previously presented) The system of claim 159, wherein the monomer comprises an aromatic containing bis(allyl carbonate)-functional monomer.

180. (previously presented) The system of claim 159, wherein the monomer comprises a polyol (allyl carbonate)-functional monomer, an acrylic-functional monomer, a methacrylic-functional monomer, or mixtures thereof.

181. (previously presented) The system of claim 159, wherein the lens forming composition further comprises a co-initiator that activates curing of the monomer to form the eyeglass lens during use.
182. (previously presented) The system of claim 159, wherein the co-initiator comprises an amine.
183. (cancelled).
184. (previously presented) The system of claim 159, further comprising a filter disposed between the first light generator and at least one of the mold members, wherein the filter comprises a bisphenol compound to make the filter hazy.
185. (previously presented) The system of claim 159, further comprising a filter disposed between the first light generator and at least one of the mold members, wherein the filter comprises a styrene-butadiene copolymer to make the filter hazy.
186. (previously presented) The system of claim 159, further comprising a filter disposed between the first light generator and at least one of the mold members, wherein the filter is substantially translucent to light.
187. (previously presented) The system of claim 159, further comprising a filter disposed between the first light generator and at least one of the mold members, wherein the filter is substantially hazy such that the filter disperses the light into a plurality of light rays during use.
188. (previously presented) The system of claim 159, further comprising a filter disposed between the first light generator and at least one of the mold members, wherein the filter comprises a varying thickness configured to vary an intensity distribution of light directed across the mold members such that a greater amount of light passing through a thick portion of the filter is attenuated than passing through a thin portion of the filter.

189.-199. (cancelled).

200. (previously presented) The system of claim 159, wherein the photochromic compound comprises one or more spiropyrans.

201. (previously presented) The system of claim 159, wherein the photochromic compound comprises one or more spirooxazines, one or more spiropyrans, one or more spironaphthoxazines, one or more spiropyridobenzoxazines, one or more spirobenzoxazines, one or more naphthopyrans, one or more benzopyrans, one or more spironaphthopyrans, one or more indolinospironaphthoxazines, one or more indolinospironaphthopyrans, one or more diarylnaphthopyrans, or mixtures thereof.

202. (previously presented) The system of claim 159, wherein the photochromic compound comprises a photochromic compound, wherein the photochromic compound comprises one or more spiropyrans and one or more spirooxazines.

203. (new) A system for making an ophthalmic eyeglass lens, comprising:

a first mold member having a casting face and a non-casting face;

a second mold member having a casting face and a non-casting face, the second mold member being adapted to be spaced apart from the first mold member during use such that the casting faces of the first mold member and the second mold member at least partially define a mold cavity;

a lens forming composition adapted to be disposed within the mold cavity during use, comprising:

a monomer that cures by exposure to activating light to form the eyeglass lens during use;

an ultraviolet light absorbing compound that substantially absorbs light having a wavelength below about 380 nm during use and wherein the ultraviolet light absorbing compound comprises a photochromic compound;

a photoinitiator that initiates curing of the monomer in response to being exposed to activating light having a wavelength greater than 400 nm; and

a first light generator adapted to generate and direct activating light at a wavelength greater than 400 nm toward at least one of the mold members to cure the lens forming composition and to form the eyeglass lens during use.

204. (new) The system of claim 203, further comprising a controller to control the first light generator during use such that activating light is directed in a plurality of pulses toward at least one of the first and second mold members.

205. (new) The system of claim 203 wherein the first light generator is adapted to direct activating light toward the first mold member, and further comprising a second light generator adapted to generate and direct a pulse of activating light toward the second mold member.

206. (new) The system of claim 203 wherein the first light generator is adapted to direct activating light toward the first mold member, and further comprising a second light generator adapted to generate and direct a pulse of activating light toward the second mold member, and further comprising a controller adapted to control the first and second light generators such that activating light is directed in a plurality of pulses toward the first and second mold members.

207. (new) The system of claim 203 wherein the first light generator is adapted to generate and direct activating light pulses with a sufficiently high intensity such that the photoinitiator forms a first polymer chain radical.

208. (new) The system of claim 203 wherein the first light generator is further adapted to generate and direct activating light pulses with a sufficiently high intensity such that the

photoinitiator forms a first polymer chain radical that reacts with a co-initiator and such that the co-initiator forms a second polymer chain radical that reacts with the monomer.

209. (new) The system of claim 203, further comprising a hazy filter positioned between the first light generator and at least one of the mold members, the filter being adapted to manipulate intensity of activating directed light toward the lens forming composition during use.
210. (new) The system of claim 203, further comprising a hazy filter positioned between the first light generator and at least one of the mold members, the filter comprising a varying thickness such that the filter varies an intensity distribution of activating light directed across the mold members during use.
211. (new) The system of claim 203, further comprising a cooler adapted to cool the mold cavity during use.
212. (new) The system of claim 203, further comprising a distributor adapted to apply air to the mold cavity to remove heat from the mold cavity during use.
213. (new) The system of claim 203, wherein the first light generator comprises a fluorescent light source.
214. (new) The system of claim 203 wherein the first light generator comprises a fluorescent light source adapted to emit light at a wavelength of greater than 400 nanometers to 490 nanometers.
215. (new) The system of claim 203, further comprising a temperature sensor configured to measure changes in the temperature of the lens forming composition during use.
216. (new) The system of claim 203, further comprising a temperature sensor and a controller, the temperature sensor being configured to measure changes in the temperature of the lens forming composition during use, the controller being configured to adjust a dose of initiating

light reaching the cavity as a function of the changes in the temperature of the lens forming composition measured by the temperature sensor over a period of time during use.

217. (new) The system of claim 216, wherein the controller is configured to vary an intensity of the light in response to the difference in the temperature of the lens forming composition over the period of time.

218. (new) The system of claim 216, wherein the controller is configured to vary a duration of the light in response to the difference in the temperature of the lens forming composition over the period of time.

219. (new) The system of claim 216, wherein the controller is configured to stop application of light to the lens forming composition after substantially all of the lens forming composition has been cured.

220. (new) The system of claim 216, wherein the controller is a Proportional-Integral-Derivative controller.

221. (new) The system of claim 203, wherein the monomer comprises a polyethylenic-functional monomer containing ethylenically unsaturated groups selected from acrylyl and methacrylyl.

222. (new) The system of claim 203, wherein the monomer comprises an aromatic containing bis(allyl carbonate)-functional monomer.

223. (new) The system of claim 203, wherein the monomer comprises a polyol (allyl carbonate)-functional monomer, an acrylic-functional monomer, a methacrylic-functional monomer, or mixtures thereof.

224. (new) The system of claim 203, wherein the lens forming composition further comprises a co-initiator that activates curing of the monomer to form the eyeglass lens during use.

225. (new) The system of claim 224, wherein the co-initiator comprises an amine.
226. (new) The system of claim 203, further comprising a filter disposed between the first light generator and at least one of the mold members, wherein the filter comprises a bisphenol compound to make the filter hazy.
227. (new) The system of claim 203, further comprising a filter disposed between the first light generator and at least one of the mold members, wherein the filter comprises a styrene-butadiene copolymer to make the filter hazy.
228. (new) The system of claim 203, further comprising a filter disposed between the first light generator and at least one of the mold members, wherein the filter is substantially translucent to light.
229. (new) The system of claim 203, further comprising a filter disposed between the first light generator and at least one of the mold members, wherein the filter is substantially hazy such that the filter disperses the light into a plurality of light rays during use.
230. (new) The system of claim 203, further comprising a filter disposed between the first light generator and at least one of the mold members, wherein the filter comprises a varying thickness configured to vary an intensity distribution of light directed across the mold members such that a greater amount of light passing through a thick portion of the filter is attenuated than passing through a thin portion of the filter.
231. (new) The system of claim 203, further comprising a filter, wherein the filter filters light below 380 nm.
232. (new) The system of claim 203, wherein the activating light at a wavelength is between 385 and 490 nm.

233. (new) The system of claim 203, wherein the light absorbing compound comprises 2-(2-H benzotriazole-2-yl)-4-(1,1,3,3 tetramethyl butyl) phenol.
234. (new) The system of claim 203, wherein the light absorbing compound comprises 2(2H-benzotriazol-2-yl)-4-(1,1,3,3 tetramethyl)phenol.
235. (new) The system of claim 203, wherein the light absorbing compound comprises 2-[4-((2-hydroxy-3-dodecyloxypropyl)-oxy)-2-hydroxyphenyl]-4,6-bis(2,4-dimethylphenyl)-1,3,5-triazine.
236. (new) The system of claim 203, wherein the light absorbing compound comprises 2-[4-((2-hydroxy-3-tridecyloxypropyl)-oxy)-2-hydroxyphenyl]-4,6-bis(2,4-dimethylphenyl)-1,3,5-triazine.
237. (new) The system of claim 203, wherein the light absorbing compound comprises bis(1,2,2,6,6)-pentamethyl-4-piperdiny)sebacate.
238. (new) The system of claim 203, wherein the light absorbing compound comprises a compound selected from the group consisting of bis(1,2,2,6,6)-pentamethyl-4-piperdiny)sebacate, poly(oxy-1,2-ethanediyl), α -(3-(3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl)-1-oxopropyl)- ω -hydroxypoly(oxy-1,2-ethanediyl)poly(oxy-1,2-ethanediyl), α -(3-(3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl)-1-oxopropyl)- ω -(3-(3-(2H-benzotriazol-2-yl)-5-1,1-dimethylethyl)-4-hydroxyphenyl)-1-oxopropoxy)poly(oxy-1,2-ethanediyl), 2-(2H benzotriazole-2-yl)-4-(1,1,3,3 tetramethyl butyl)phenol, 2-[4-((2-hydroxy-3-dodecyloxypropyl)-oxy)-2 hydroxyphenyl]-4,6-bis(2,4-dimethylphenyl)-1,3,5-triazine, 2-[4-((2-hydroxy-3-tridecyloxypropyl)-oxy)-2-hydroxyphenyl]-4,6-bis(2,4-dimethylphenyl)-1,3,5-triazine, or mixtures thereof.
239. (new) The system of claim 203, wherein the light absorbing compound further comprises a photochromic compound, wherein the photochromic compound comprises one or more spiropyrans.

240. (new) The system of claim 203, wherein the light absorbing compound further comprises a photochromic compound, wherein the photochromic compound comprises one or more spiropyrans and one or more spirooxazines.

241. (new) The system of claim 203, wherein the light absorbing compound further comprises a photochromic compound, wherein the photochromic compound comprises one or more spirooxazines, one or more spiropyrans, one or more spironaphthoxazines, one or more spiropyridobenzoxazines, one or more spirobenzoxazines, one or more naphthopyrans, one or more benzopyrans, one or more spironaphthopyrans, one or more indolinospironaphthoxazines, one or more indolinospironaphthopyrans, one or more diarylnaphthopyrans, or mixtures thereof.